

FILE 'HOME' ENTERED AT 09:25:04 ON 03 JUL 1998					
=> file medline biosis capsul					
<b>COST IN U.S. DOLLARS</b>					
ENTRY	SINCE FILE	TOTAL			
SESSION					
0.15	0.15				
<b>FULL ESTIMATED COST</b>					
<b>FILE 'MEDLINE' ENTERED AT 09:25:17 ON 03 JUL 1998</b>					
<b>FILE 'BIOSIS' ENTERED AT 09:25:17 ON 03 JUL 1998</b>					
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COPYRIGHT (C) 1998 AMERICAN CHEMICAL SOCIETY (ACS)					
<b>=&gt; s cmv or cytomegalovirus or cytomegalovirus</b>					
L1	47016 CMV OR CYTOMEGA VIRUS OR CYTOMEGALO VIRUS				
<b>=&gt; s pp28</b>					
L2	68 PP28				
<b>=&gt; s "ad169" or "ad 169"</b>					
L3	996 "AD169" OR "AD 169"				
<b>=&gt; s l1 and l2 and l3</b>					
L4	6 L1 AND L2 AND L3				
<b>=&gt; dup rem l4</b>					
<b>PROCESSING COMPLETED FOR L4</b>					
L5	2 DUP REM L4 (4 DUPLICATES REMOVED)				
<b>=&gt; d 1-2 bib ab</b>					
<b>ANSWER 1 OF 2 MEDLINE</b>					
DN	882230581 MEDLINE				
TI Identification and procarcytic expression of the gene coding for the highly immunogenic 28-kilodalton structural phosphoprotein (***pp28***) of human ***cytomegalovirus***					
AU	Meyer H; Blankert A; Landini M P; Brown C M; Barrell B G; Ruger B; Mach M				
CS	Institut für Klinische und Molekulare Virologie, Universität Erlangen-Nürnberg, Federal Republic of Germany.				
SO	JOURNAL OF VIROLOGY (1988) 62 (7) 2243-50.				
Journal code: KCV; ISSN: 0022-538X.					
CY	United States				
DT	Journal; Article; (JOURNAL ARTICLE)				
LA	English				
FS	Priority Journals; Cancer Journals				
OS	GENBANK:M21013				
EM	198809				
AB	Human ***cytomegalovirus*** contains a structural polypeptide that is 28 kilodaltons in apparent molecular size and is reactive in Western blot (immunoblot) analysis with the majority of human sera. The gene coding for this polypeptide was mapped on the genome of human ***cytomegalovirus*** strain ***AD169***. A monoclonal antibody specific for the 28-kilodalton polypeptide was used to screen a cDNA library constructed from poly(A)+ RNA of human ***cytomegalovirus***-infected cells in the procarcytic expression vector lambda gt11. Hybridization of cDNA with cosmid and plasmid clones mapped the gene to the HindIII R fragment. The gene was transcribed into a late 1.3-kilobase RNA. The nucleotide sequence of the coding region was determined. Parts of the 28-kilodalton polypeptide were expressed in Escherichia coli as hybrid proteins fused to beta-galactosidase. In Western blot these proteins were recognized by human sera. Antibodies raised against the hybrid proteins reacted specifically with the viral antigen in immunoprecipitations and Western blots. In vitro phosphorylation of HCMV virions and immunoprecipitation showed that the 28-kilodalton polypeptide was phosphorylated.				
NC	CA302006 (NCI)				
CA33572 (NCI)					
SO	VIROLOGY (1991 Oct) 184 (2) 762-7.				
CY	United States				
DT	Journal; Article; (JOURNAL ARTICLE)				
LA	English				
FS	Priority Journals; Cancer Journals				
OS	GENBANK:M73441				
EM	199112				
AB	Human ***cytomegalovirus*** (HCMV) contains a 28-kDa (				
<b>ANSWER 1 OF 1 MEDLINE</b>					
DN	9116106 MEDLINE				
TI The genome of human herpesvirus 6: maps of uni-length and concatemeric genomes for nine restriction endonucleases.					
AU	Martin M E; Thomson B J; Honess R W; Craxton M A; Gompels U J; Liu M; Yil Litter E; Arnaud J R; Teo I; Jones M D				
CS	Division of Virology, National Institute for Medical Research, Mill Hill, London, UK.				
SO	JOURNAL OF GENERAL VIROLOGY (1991 Jan) 72 (Pt 1) 157-4				
Journal code: JGV; ISSN: 0022-3137.					
CY	ENGLAND				
DT	Journal; Article; (JOURNAL ARTICLE)				
LA	English				
FS	Priority Journals; Cancer Journals				
EM	199105				
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L10	0 L9 AND L6				
L9	686 L7 AND L8				
L11	3 L9 AND L1				
L12	1 DUP REM L11 (2 DUPLICATES REMOVED)				
<b>PROCESSING COMPLETED FOR L11</b>					
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<b>ANSWER 1 OF 2 MEDLINE</b>					
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CS	Division of Virology, National Institute for Medical Research, Mill Hill, London, UK.				
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HTLV-6 resembles closely that suggested by Pellett and his colleagues for the Z29 isolate and differs from that of the five previously characterized human herpesviruses. This structure of HTLV-6 DNA bears a superficial resemblance to that proposed for DNA from channel catfish virus and equine \*\*\*cytomegalovirus\*\*\*.

=> d his

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FILE MEDLINE, BIOSIS, CAPLUS ENTERED AT 09:25:17 ON 03 JUL 1998

L1 47016 S CMV OR CYTOMEGALOVIRUS OR CYTOMEGALO VIRUS

L2 68 S PP28  
996 S "AD169" OR "AD 169"

L3 6 S L1 AND L2 AND L3  
2 DUP REM L1A (4 DUPLICATES REMOVED)

L4 40 S L1 AND L2  
L5 15646 S "HINDIII" OR "HIND III"

L6 2866 S "SMAI"  
686 S L7 AND L8

L7 0 S L9 AND L6  
L8 3 S L9 AND L1  
L9 1 DUP REM L11 (2 DUPLICATES REMOVED)

L10 43 L21 AND L20  
=> s L21 and L20

L11 43 L21 AND L20  
=> s L21 and L20

L12 43 L21 AND L20  
=> s L21 and L20

L13 938 HUMAN AND L3  
=> s L13 and L1

L14 937 L13 AND L1  
=> s L13 and L1

L15 168536 GLYCOPROTEIN  
24380 S PHOSPHOPROTEIN  
0 S "PG11"

L16 344708 S MONOCLONAL OR "MAB PG11"  
192406 S L15 OR L16  
L17 125 S L19 AND L14  
L18 192406 S L15 OR L16  
L19 125 S L18 AND L14  
L20 0 S L21 AND "MAB PG11"  
L21 43 S L21 AND L20  
L22 43 S L21 AND L20  
=> s L13 and L23  
=> s L24 and L23  
=> s L24 and human

L23 43 L24 AND HUMAN  
=> s L13 and L23  
=> s L24 and L23  
=> s L24 and human

L24 43 L3 AND L23  
=> s L24 and human

L25 43 L24 AND HUMAN  
=> dup rem L25

L26 21 DUP REM L25 (22 DUPLICATES REMOVED)  
=> d 1-21 bib ab

L27 ANSWER 1 OF 21 BIOSIS COPYRIGHT 1998 BIOSIS  
AN 97-41434 BIOSIS  
DN 99706477 4294144 BIOSIS  
TI Identification of the gene coding for rhesus \*\*\*cytomegalovirus\*\*\*  
\*\*\*glycoprotein\*\*\* B and immunological analysis of the protein.

=> s L18 and L14

L21 139 L18 AND L14

L22 0 L21 AND "MAB PG11"

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L5 2 DUP REM L1A (4 DUPLICATES REMOVED)

L6 43 L21 AND L20  
=> s L21 and L20

L7 43 L21 AND L20  
=> s L21 and L20

L8 43 L21 AND L20  
=> s L21 and L20

L9 43 L21 AND L20  
=> s L21 and L20

L10 43 L21 AND L20  
=> s L21 and L20

L11 43 L21 AND L20  
=> s L21 and L20

L12 43 L21 AND L20  
=> s L21 and L20

L13 43 L21 AND L20  
=> s L21 and L20

L14 43 L21 AND L20  
=> s L21 and L20

L15 43 L21 AND L20  
=> s L21 and L20

L16 43 L21 AND L20  
=> s L21 and L20

L17 0 P2G11  
=> s L21 and L20

L18 344708 MONOCLONAL OR "MAB P2G11"  
=> s L13 or L16

L19 192406 L15 OR L16  
=> s L19 and L14

L20 125 L19 AND L14  
=> s L28 and L14

L21 43 L24 AND HUMAN  
=> dup rem L25

L22 PROCESSING COMPLETED FOR L25  
21 DUP REM L25 (22 DUPLICATES REMOVED)

L23 43 L24 AND HUMAN  
=> dup rem L25

L24 139 L18 AND L14  
=> s L28 and L14

L25 43 L24 AND HUMAN  
=> dup rem L25

L26 21 DUP REM L25 (22 DUPLICATES REMOVED)  
=> d 1-21 bib ab

L27 ANSWER 1 OF 21 BIOSIS COPYRIGHT 1998 BIOSIS  
AN 97-41434 BIOSIS  
DN 99706477 4294144 BIOSIS  
TI Identification of the gene coding for rhesus \*\*\*cytomegalovirus\*\*\*  
\*\*\*glycoprotein\*\*\* B and immunological analysis of the protein.

AU Kropp B; Mach M  
CS Institut fuer Klinische und Molekulare Virologie, Universitaet Erlangen-Nuernberg, Schlossgarten 4, 91054 Erlangen, Germany

SO Journal of General Virology 78 (8), 1997, 1999-2007, ISSN: 0022-1317  
LA English

AB The nucleotide sequence of the gene encoding \*\*\*glycoprotein\*\*\* B (GB) of rhesus \*\*\*cytomegalovirus\*\*\* (RhCMV) was determined and the protein characterized. The open reading frame of GB encoded a protein of 154 amino acids with 60% identity and 75% similarity at the amino acid level to \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) GB. Cysteine residues in the extracellular part of the protein are perfectly conserved. Out of the 16 potential N-linked glycosylation sites present in HCMV GB, 15 are conserved in RhCMV GB. Immunoblot analyses with antisera detected three bands of 115 kDa, 98-110 kDa and 55 kDa representing the full-length GB as well as the proteolytic cleavage products. Cross-reactivity and cross-neutralization of a number of HCMV GB-specific \*\*\*monoclonal\*\*\* antibodies with RhCMV GB indicated sharing of immunogenic epitopes between the two molecules. The RhCMV GB regions corresponding to antigenic domains AD-1, 2 and 3 of HCMV GB were immunogenic during natural RhCMV infection with the AD-1 region being the immunodominant domain. The data indicate that RhCMV might represent a useful model to investigate pathogenesis and immune surveillance of cytomegaloviruses.

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686 S L7 AND L8

L3 0 S L9 AND L6  
3 S L9 AND L1  
1 DUP REM L11 (2 DUPLICATES REMOVED)

L4 938 SHUMAN AND L3  
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125 S L18 AND L14  
0 S L21 AND "MAB PG11"  
43 S L21 AND L20  
=> s L13 and L23  
=> s L24 and L23  
=> s L24 and human

L7 43 L21 AND L20  
=> s L21 and L20

L8 43 L21 AND L20  
=> s L21 and L20

L9 43 L21 AND L20  
=> s L21 and L20

L10 43 L21 AND L20  
=> s L21 and L20

L11 43 L21 AND L20  
=> s L21 and L20

L12 43 L21 AND L20  
=> s L21 and L20

L13 43 L21 AND L20  
=> s L21 and L20

L14 43 L21 AND L20  
=> s L21 and L20

L15 43 L21 AND L20  
=> s L21 and L20

L16 43 L21 AND L20  
=> s L21 and L20

L17 0 P2G11  
=> s L21 and L20

L18 344708 MONOCLONAL OR "MAB P2G11"  
=> s L13 or L16

L19 192406 L15 OR L16  
=> s L19 and L14

L20 125 L19 AND L14  
=> s L28 and L14

L21 43 L24 AND HUMAN  
=> dup rem L25

L22 PROCESSING COMPLETED FOR L25  
21 DUP REM L25 (22 DUPLICATES REMOVED)

L23 43 L24 AND HUMAN  
=> dup rem L25

L24 139 L18 AND L14  
=> s L28 and L14

L25 43 L24 AND HUMAN  
=> dup rem L25

L26 21 DUP REM L25 (22 DUPLICATES REMOVED)  
=> d 1-21 bib ab

L27 ANSWER 1 OF 21 BIOSIS COPYRIGHT 1998 BIOSIS  
AN 97-41434 BIOSIS  
DN 99706477 4294144 BIOSIS  
TI Identification of the gene coding for rhesus \*\*\*cytomegalovirus\*\*\*  
\*\*\*glycoprotein\*\*\* B and immunological analysis of the protein.

L1 10  
AU Kropp B; Mach M  
CS Institut fuer Klinische und Molekulare Virologie, Universitaet Erlangen-Nuernberg, Schlossgarten 4, 91054 Erlangen, Germany  
SO Journal of General Virology 78 (8), 1997, 1999-2007, ISSN: 0022-1317  
LA English  
AB The nucleotide sequence of the gene encoding \*\*\*glycoprotein\*\*\* B (GB) of rhesus \*\*\*cytomegalovirus\*\*\* (RhCMV) was determined and the protein characterized. The open reading frame of GB encoded a protein of 154 amino acids with 60% identity and 75% similarity at the amino acid level to \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) GB. Cysteine residues in the extracellular part of the protein are perfectly conserved. Out of the 16 potential N-linked glycosylation sites present in HCMV GB, 15 are conserved in RhCMV GB. Immunoblot analyses with antisera detected three bands of 115 kDa, 98-110 kDa and 55 kDa representing the full-length GB as well as the proteolytic cleavage products. Cross-reactivity and cross-neutralization of a number of HCMV GB-specific \*\*\*monoclonal\*\*\* antibodies with RhCMV GB indicated sharing of immunogenic epitopes between the two molecules. The RhCMV GB regions corresponding to antigenic domains AD-1, 2 and 3 of HCMV GB were immunogenic during natural RhCMV infection with the AD-1 region being the immunodominant domain. The data indicate that RhCMV might represent a useful model to investigate pathogenesis and immune surveillance of cytomegaloviruses.

L1 15646 S "HINDIII" OR "HIND III"

L2 2866 S "SMAI"  
686 S L7 AND L8

L3 0 S L9 AND L6  
3 S L9 AND L1  
1 DUP REM L11 (2 DUPLICATES REMOVED)

L4 938 SHUMAN AND L3  
937 L13 AND L1  
1 DUP REM L11 (2 DUPLICATES REMOVED)

L5 168536 S GLYCOPROTEIN  
24380 S PHOSPHOPROTEIN  
0 S "PG11"

L6 344708 S MONOCLONAL OR "MAB PG11"  
192406 S L15 OR L16  
125 S L19 AND L14  
192406 S L15 OR L16  
125 S L18 AND L14  
0 S L21 AND "MAB PG11"  
43 S L21 AND L20  
=> s L13 and L23  
=> s L24 and L23  
=> s L24 and human

L7 43 L21 AND L20  
=> s L21 and L20

L8 43 L21 AND L20  
=> s L21 and L20

L9 43 L21 AND L20  
=> s L21 and L20

L10 43 L21 AND L20  
=> s L21 and L20

L11 43 L21 AND L20  
=> s L21 and L20

L12 43 L21 AND L20  
=> s L21 and L20

L13 43 L21 AND L20  
=> s L21 and L20

L14 43 L21 AND L20  
=> s L21 and L20

L15 43 L21 AND L20  
=> s L21 and L20

L16 43 L21 AND L20  
=> s L21 and L20

L17 0 P2G11  
=> s L21 and L20

L18 344708 MONOCLONAL OR "MAB P2G11"  
192406 L15 OR L16  
=> s L19 and L14

L19 125 L19 AND L14  
=> s L28 and L14

L20 125 L19 AND L14  
=> s L28 and L14

L21 43 L24 AND HUMAN  
=> dup rem L25

L22 PROCESSING COMPLETED FOR L25  
21 DUP REM L25 (22 DUPLICATES REMOVED)

L23 43 L24 AND HUMAN  
=> dup rem L25

L24 139 L18 AND L14  
=> s L28 and L14

L25 43 L24 AND HUMAN  
=> dup rem L25

L26 21 DUP REM L25 (22 DUPLICATES REMOVED)  
=> d 1-21 bib ab

L27 ANSWER 1 OF 21 BIOSIS COPYRIGHT 1998 BIOSIS  
AN 97-41434 BIOSIS  
DN 99706477 4294144 BIOSIS  
TI Identification of the gene coding for rhesus \*\*\*cytomegalovirus\*\*\*  
\*\*\*glycoprotein\*\*\* B and immunological analysis of the protein.

L1 10

foxi of these nuclei as found in the nuclei of productively infected cells shortly after infection. In addition, the 34K, 43K and 50K proteins at least were shown to be DNA-binding protein by double- and single-stranded DNA-cellulose column chromatography. The relationship of these proteins to the status of viral DNA replication is discussed.

L26 ANSWER 3 OF 21 CAPLUS COPYRIGHT 1998 ACS

AN 1995-588262 CAPLUS

DN 11-22:34808

TI The antigenic and genomic variation of \*\*\*human\*\*\*

\*\*\*cytomegalovirus\*\*\* (HCMV) isolated in Korea

AU Hwang, Eung-Soo; Lee, Hong-Bock; Lim, Dong-Gyun; Seoh, Ju-Young; Park, Chung-Gyu; Kook, Jae-Won; Jong, Hyun-Soon; Kook, Yoon-Hoh; Lee, Hoan-Jong; et al.

CS College of Medicine, Seoul National Univ., Seoul, 110-799, S. Korea

SO Taehan Misstengui Hakkoehi (1994), 29(6), 631-9

CODEN: TMHCDX; ISSN: 0253-3162

DT Journal

LA Korean

AB Antigenic and genomic variations of HCMV isolated in Korea were studied using a panel of \*\*\*glycoprotein\*\*\* B (gB)-specific \*\*\*monoclonal\*\*\* antibodies and PCR of the gB gene followed by restriction enzyme anal. The reactivities of the \*\*\*monoclonal\*\*\* antibodies to several Korean HCMV isolates differed from that of the lab. strain \*\*\*AD169\*\*\*. Restriction anal. of the gB gene from 15 Korean isolates showed 2 isolates with the same restriction pattern as \*\*\*AD169\*\*\* and 13 isolated with different patterns. Thus, HCMV isolated in Korea had unique antigenic and genomic structures.

previously incubated with MSL or not. Four days after infection \*\*\*CMV\*\*\* replication was measured by DNA/DNA probe hybridization using the Hybridivis system. MSL in combination with GCV had an additive effect that was observed at concentrations of GCV of 3-10 microM and MSL of 1-10 micrograms/ml. On the other hand, MSL (3-10 micrograms/ml) together with PFA (100-400 microM) produced a synergistic effect on \*\*\*CMV\*\*\* replication. The data suggest that MSL at doses achievable in humans, enhanced GCV- and PFA-induced antiviral effect in a dose-dependent manner and that the combination might be clinically useful in the treatment of \*\*\*CMV\*\*\* disease.

L26 ANSWER 5 OF 21 MEDLINE

AN 93019061 MEDLINE

DN 93019061

TI \*\*\*Glycoprotein\*\*\* gp116 of \*\*\*human\*\*\*

\*\*\*cytomegalovirus\*\*\* contains epitopes for strain-common and strain-specific antibodies.

AU Meyer, H; Sundquist, V; Pereira, L; Mach, M

CS Institut für Klinische und Molekulare Virologie, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany.

SO JOURNAL OF GENERAL VIROLOGY, (1992 Sep) 73 ( Pt 9) 2375-83.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Cancer Journals; Priority Journals

EM 199301

AB \*\*\*Glycoprotein\*\*\* gp116 of \*\*\*human\*\*\*

\*\*\*cytomegalovirus\*\*\* (HCMV) is a target for neutralizing

antibodies. Gp116 is a component of the gC1 complex which consists

of gp88 and gp116. Like its homolog, \*\*\*glycoprotein\*\*\* B of

herpes simplex virus type 1, gp116 contains a highly antigenic

region in the N-terminal part of the molecule, between amino acids

28 and 84. Prokaryotic expression plasmids and synthetic peptides

were used to define binding sites for mouse and \*\*\*human\*\*\*

\*\*\*monoclonal\*\*\* antibodies (Mabs) as well as HCMV convalescent

serum. It is located between amino acids 68 and 77, contains an

epitope recognized by the \*\*\*human\*\*\* Mab, C23, which is capable

of neutralizing HCMV independently of complement and the site is

conserved between HCMV strains. Of HCMV-positive \*\*\*human\*\*\*

sera, 53% recognized site I. Site II was mapped using mouse Mabs as

well as \*\*\*human\*\*\* sera. It is located between residues 50 and

54, an area which is not conserved between strains \*\*\*AD169\*\*\* and Towne, the two laboratory strains of known sequence.

Strain-specific antibodies were detected in 25% of \*\*\*human\*\*\*

sera. Site II-specific antibodies, purified from \*\*\*human\*\*\* sera by affinity chromatography, were found to be incapable of

neutralizing HCMV in tissue culture.

is strain specific.

AU Urban, M; Britt, W; Mach, M

CS Institut für Klinische und Molekulare Virologie, Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany.

NC 1 PO1 HD10659 (NIHCD)

1 RO1 AI0105 (NIHCD)

SO JOURNAL OF VIROLOGY, (1992 Mar) 66 (3) 1303-11.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Cancer Journals; Priority Journals

EM 199205

AB Bacterial fusion proteins, constructed from overlapping fragments of the open reading frame coding for gp6 of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) strain \*\*\*AD169\*\*\*, were used to locate antigenic regions recognized by antibodies from \*\*\*human\*\*\* convalescent sera. A major domain for binding of conformation-independent antibodies was located on fusion protein AP86, containing amino acids 15 to 142 of gp86. \*\*\*Human\*\*\* antibodies, affinity purified on AP86, neutralized infectious virus in tissue culture. In addition, a mouse \*\*\*monoclonal\*\*\* antibody (AP86-S4) raised also neutralized HCMV.

AP86-S4 was reactive with viral gp86 in immunoblot assays and showed a plasma membrane staining on intact HCMV-infected fibroblasts late in infection. After exocytosis, III detections of the viral gene, the binding site of neutralizing \*\*\*human\*\*\* as well as mouse antibodies was localized between amino acid residues 34 and 43. The domain has sequence variation between laboratory strains \*\*\*AD169\*\*\* and Towne, and binding of the antibodies was strain specific. To our knowledge, this is the first characterization of a strain-specific neutralizing epitope on HCMV.

L26 ANSWER 7 OF 21 MEDLINE

AN 92241082 MEDLINE

DN 92241082

TI The amino terminus of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\*

\*\*\*glycoprotein\*\*\* B contains epitopes that vary among strains.

AU Bagas, N; Qadri, I; Navarro, D; Setsu, A; Lemette, E; Youngblom, J; Pereira, L

CS Division of Oral Biology, School of Dentistry, University of California, San Francisco 94143.

NC 1A123592 (NIHCD)

AI24009 (NIHCD)

SO JOURNAL OF GENERAL VIROLOGY, (1992 Apr) 73 ( Pt 4) 981-8.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

EM 199210

AB We mapped three antigenic domains of continuous epitopes on \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (\*\*\*CMV\*\*\*)

\*\*\*glycoprotein\*\*\* B (gB) by reacting a panel of independently derived \*\*\*monoclonal\*\*\* antibodies with deletion mutants

expressed transiently in COS-1 cells. One of these antigenic domains, DC2, maps in the last 75 amino acids of the carboxy

terminus. DC2 maps in the last 75 amino acids of strains Towne and

\*\*\*AD169\*\*\*, as well as in 19 clinical \*\*\*CMV\*\*\* isolates.

ELISAs of DC2-reactive antibodies with a set of overlapping

synthetic oligopeptides from the carboxy terminus showed that the epitopes of antibodies CH405-1 and CH421-5 map between amino acids

813 and 852 and that the epitope of antibody CH28-2 maps between

amino acids 878 and 898. These linear epitopes were grouped into

domain DC3. The third antigenic domain, DC1, maps at the

anti-terminal end of \*\*\*CMV\*\*\* strain \*\*\*AD169\*\*\* gB but is

not contained in strain Towne or in 17 of 19 clinical isolates.

Epitopes in this domain are likely to map between amino acids 28 and

67, an area where differences occur in the nucleotide sequence of

the gB genes from \*\*\*AD169\*\*\* and Towne. Analysis of \*\*\*CMV\*\*\*

\*\*\*CMV\*\*\* replication was measured by DNA/DNA probe hybridization using the Hybridivis system. MSL in combination with GCV had an additive effect that was observed at concentrations of GCV of 3-10 microM and MSL of 1-10 micrograms/ml. On the other hand, MSL (3-10 micrograms/ml) together with PFA (100-400 microM) produced a synergistic effect on \*\*\*CMV\*\*\* replication. The data suggest that MSL at doses achievable in humans, enhanced GCV- and PFA-induced antiviral effect in a dose-dependent manner and that the combination might be clinically useful in the treatment of \*\*\*CMV\*\*\* disease.

L26 ANSWER 4 OF 21 MEDLINE

DUPPLICATE 2

DN 95030975 MEDLINE

TI \*\*\*Human\*\*\* \*\*\*monoclonal\*\*\* anti- \*\*\*cytomegalovirus\*\*\*

(\*\*\*CMV\*\*\* antibody (MSL-109); enhancement of in vitro

replication, and ganciclovir-induced inhibition of \*\*\*CMV\*\*\*

replication.

AU Norka, M; Tolpin, M; Nadler, P; Pollard, R; B

CS Department of Internal Medicine, University of Texas Medical Branch, Galveston, TX, 77555

SO ANTI-HERPES VIRUS RESEARCH, (1994, May) 24 (1) 17-26.

Journal code: 617, ISSN: 0166-3342.

CY Netherlands

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199501

AB \*\*\*Human\*\*\* \*\*\*CMV\*\*\* causes a number of diseases that cause considerable morbidity and that can be life-threatening in immunocompromised patients, particularly those with AIDS.

Genicidovir (GCV) and Foscarnet (PFA) are currently the drugs of choice for management of \*\*\*CMV\*\*\* disease. Both are not without side effects and have a relatively narrow margin of safety. In this report the effects of a \*\*\*human\*\*\* IgG1 neutralizing

\*\*\*monoclonal\*\*\* antibody MSL-109 (MSL, Sandoz Pharmaceuticals) on

\*\*\*CMV\*\*\* replication was examined both alone or in combination with either GCV or PFA. \*\*\*Human\*\*\* embryonic lung fibroblasts were infected with \*\*\*CMV\*\*\* strain \*\*\*AD169\*\*\* with a multiplicity of infection of 3 plaque forming units/0.1 ml for 1 h. Prior to infection the virus was incubated for 30 min at 37 degrees C with serial concentrations of the MSL Ab (0.1-3.0 micrograms/ml).

Concentrations of GCV (0.3 to 10 micrograms/ml) or PFA (50-400 microM) were added to \*\*\*CMV\*\*\*-infected cells that had been either

extracellular and that the carboxy terminus is not exposed on the cell surface.

encoding pp28 of HCMV Towne strain (pp28Towne) and have expressed this gene in stable Chinese hamster ovary (CHO) cell lines in order to examine the structural, functional, and antigenic properties of this protein. The pp28Towne gene had 99% nucleotide and 98.4% amino acid similarity to the pp28 gene of HCMV \*\*\*AD169\*\*\* strain (pp28AD169). We identified three amino acid substitutions (Gly70 to Ser70, Ser76 to Asn76, and Thr83 to Ala83) in pp28Towne, all clustered in a short 16 amino acid stretch located in the N-terminal half of the protein. The pp28Towne gene was expressed in CHO cells using a vector in which transcription was driven by a \*\*\*human\*\*\* beta-actin promoter. The expressed protein, having an electrophoretic mobility similar to that of HCMV-derived pp28, reacted strongly in immunoblot analysis with pp28-specific murine \*\*\*monoclonal\*\*\* antibodies as well as HCMV-seropositive \*\*\*human\*\*\* sera.

res. area is located between amino acids 15 and 142 on HCMV strain \*\*\*AD169\*\*\*. Using bacterially derived gp65 fusion protein as antigen a \*\*\*monoclonal\*\*\* antibody was developed which was reactive with the viral protein under denaturing conditions and was able to neutralize HCMV \*\*\*AD169\*\*\* in vitro.

L26 ANSWER 8 OF 21 MEDLINE  
AN 91245165 MEDLINE  
DN 91245165  
TI Analysis of interstrain variation in \*\*\*cytomegalovirus\*\*\*

\*\*\*glycoprotein\*\*\* B sequences encoding neutralization-related epitopes.

AU Chou, S. W.; Deniston, K. M.  
CS Medical Service, VA Medical Center, Portland, OR 97207..  
SO JOURNAL OF INFECTIOUS DISEASES, (1991 Jun) 163 (6) 1229-34.  
Journal code: JID; ISSN: 0022-189X.

CTY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index; Medicus Journals; Priority Journals

OS GENBANK-M60921; GENBANK-M60924; GENBANK-M60925;

GENBANK-M60926;

GENBANK-M60927; GENBANK-M60928; GENBANK-M60929;

GENBANK-M60930;

GENBANK-M60931; GENBANK-M60932; GENBANK-M60933;

GENBANK-M60934

GENBANK-M60935;

GENBANK-M60936;

GENBANK-M60937;

GENBANK-M60938;

GENBANK-M60939;

GENBANK-M60940;

GENBANK-M60941;

GENBANK-M60942;

GENBANK-M60943;

GENBANK-M60944;

GENBANK-M60945;

GENBANK-M60946;

GENBANK-M60947;

GENBANK-M60948;

GENBANK-M60949;

GENBANK-M60950;

GENBANK-M60951;

GENBANK-M60952;

GENBANK-M60953;

GENBANK-M60954;

GENBANK-M60955;

GENBANK-M60956;

GENBANK-M60957;

GENBANK-M60958;

GENBANK-M60959;

GENBANK-M60960;

GENBANK-M60961;

GENBANK-M60962;

GENBANK-M60963;

GENBANK-M60964;

GENBANK-M60965;

GENBANK-M60966;

GENBANK-M60967;

GENBANK-M60968;

GENBANK-M60969;

AB Nucleotide sequences of a part of the envelope \*\*\*glycoprotein\*\*\* B (gpB) gene of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (\*\*\*CMV\*\*\*), encoding epitopes recognized by virus-neutralizing antibodies, were determined for 12 distinct clinical strains of \*\*\*CMV\*\*\* after amplification of suitable templates using the polymerase chain reaction. Sequence analysis of this region (codons 384-717) revealed that the clinical strains and previously sequenced laboratory strains Towne and \*\*\*AD169\*\*\* belong to one of four variant groups, each with a characteristic nucleotide and peptide sequence. Peptide homology was greater than 99% for strains within a group, and varied from 91% to 98% for strains in different groups. Variation was most frequent between codons 448 and 490. The gpB group of a \*\*\*CMV\*\*\* strain could be determined by restriction analysis of a small target sequence amplified from viral genomic DNA, and an additional 26 clinical strains were grouped in this manner. The existence of a limited number of variants of gpB among clinical strains facilitates analysis of biologic function and cross-reactivity of immune responses.

L26 ANSWER 9 OF 21 MEDLINE

DUPLICATE 7

AN 91361569 MEDLINE

DN 91361569

TI \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* strain Towne pp28 gene: sequence comparison to pp28 of HCMV \*\*\*AD169\*\*\* and stable expression in Chinese hamster ovary cells.

AU Pande, H.; Campo, K.; Tamamchi, B.; Zain, J. A.

CS Division of Immunology, Beckman Research Institute of the City of Hope, Duarte, California 91010..

NC CA10206 (NCL)

SO VIROLOGY, (1991 Oct) 184 (2) 762-7.

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

OS GENBANK-M73741

EM 199112

AB \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) contains a 28-kDa (pp28) matrix \*\*\*phosphoprotein\*\*\* which has been shown to be highly immunogenic in humans. We have cloned and sequenced the gene

L26 ANSWER 10 OF 21 CAPLUS COPYRIGHT 1998 ACS  
AN 1992-421241 CAPLUS  
DN 117-21241

TI \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* strain Towne pp65 gene:

AU Pande, Hema; Campo, Katerine; Tamamchi, Betsy; Zain, John A.

CS Div. Immunol., Beckman Res. Inst. City of Hope, Duarte, CA, 91010, USA

SO Virology, (1991), 182(1), 220-8

CODEN: VIRLX; ISSN: 0042-6822

DT Journal

LA English

AB The \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) encodes a 65-kDa regulatory protein (pp65), which has been reported to be a target of immune response during natural infection. The authors cloned and sequenced the gene encoding pp65 of HCMV Towne strain (pp65Towne), and have expressed this gene in E. coli in order to study certain antigenic and structural properties of this polypeptide. The pp65Towne gene has a 99% nucleotide similarity and 99.7% amino acid similarity to the HCMV \*\*\*AD169\*\*\* strain (pp65AD169). However, unlike the pp65AD169 gene, the pp65Towne gene was found to be incapable of undergoing RNA splicing due to a substitution in the crit. 3' splice-acceptor site. Insertion of this protein coding sequence into the bacterial expression plasmids enabled synthesis in E. coli of an immunoreactive pp65-related polypeptide. The recombinant pp65 (pp65) reacted strongly in immunoblot anal. with pp65-specific murine and \*\*\*human\*\*\* \*\*\*monoclonal\*\*\* antibodies as well as with anti-pp65 rabbit antiserum. In immunoblot anal., the reactivity of pp65 with a panel of \*\*\*human\*\*\* HCMV-immune sera indicated that some sera were reactive while other HCMV seropos. sera were nonreactive, a finding similar to that for native pp65.

L26 ANSWER 11 OF 21 CAPLUS COPYRIGHT 1998 ACS

AN 1992-539479 CAPLUS  
DN 117-29497

TI Characterization of linear antigenic sites on \*\*\*glycoprotein\*\*\* gp65 of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\*

AU Urban, Margit; Britt, William J.; Mach, Michael

CS Inst. Klin. Mol. Virol., Univ. Erlangen-Nürnberg, Erlangen, 8520, Germany

SO Int. Congr. Ser. - Excerpta Med. (1991), 978(Prog. Cytomegalovirus Res.), 199-202

CODEN: EXIMDA4; ISSN: 0531-5131

DT Journal

LA English

OS GENBANK-M73741

EM 199112

AB \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) contains a 28-kDa

(pp28) matrix \*\*\*phosphoprotein\*\*\* which has been shown to be highly immunogenic in humans. We have cloned and sequenced the gene

AB A substantially pure immunogenic \*\*\*glycoprotein\*\*\* complex from the membrane envelope of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) comprises a 58-59 kilodalton (kD) \*\*\*glycoprotein\*\*\* which reacts with the \*\*\*monoclonal\*\*\* antibody E10 produced by hybridoma IVL-10118; the complex mol. wt is >200 kD or approx. 93 kD. A hybridoma produces a \*\*\*monoclonal\*\*\* antibody which reacts with the Towne and Toledo strains of HCMV while not significantly cross-reacting with the \*\*\*AD169\*\*\* strain, and which immunoprecip. 93 and 200 kD C-11 glycoproteins. Prod. of \*\*\*monoclonal\*\*\* antibodies and purif. and characterization of the glycoproteins by std. techniques are described.

L26 ANSWER 13 OF 21 CAPLUS COPYRIGHT 1998 ACS

AN 1990-173633 CAPLUS  
DN 112-77533

TI \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* protein similar to vertebrate MHC class I antigen for use in vaccination and diagnosis

IN Barrell, George; Beck, Stephan; Minson, Anthony C.; Smith, Geoffrey; Lilley, Crangan; Martin, Patrick

PA Cogen Ltd., UK

SO PCT Int Appl 26 PP.

CODEN: PIXXD2

P1 WO 8905855; AI 890629

DS W; JP; US

RW; AT; BE; CH; DE; FR; GB; IT; LU; NL; SE

A1 WO 88-GB1112 881215

PRAJ GB 87-29251 871215

DT Patent

LA English

AB A \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) protein similar to vertebrate MHC class I antigen is identified and the gene encoding it is cloned, sequenced, and expressed in bacteria and mammalian cells. The recombinant protein can be used for diagnosis of HCMV infection, for prep. of antibodies, and for diagnosis of HCMV infection. The HCMV protein has 3 domains, a putative extracellular domain, a domain with 3 alpha regions, a transmembrane domain, and an intracellular region, which, unlike the extracellular region, shows no significant similarity to the MHC class I antigens. The protein was produced as a beta-D-galactosidase fusion protein in Escherichia coli and in CV-1 cells using vaccinia virus expression vectors.

L26 ANSWER 14 OF 21 MEDLINE  
 AN 89279278 MEDLINE  
 DN 89279278  
 TI A major neutralizing domain maps within the carboxyl-terminal half of the cleaved \*\*\*cytomegalovirus\*\*\* B \*\*\*glycoprotein\*\*\*  
 AU Banks T; Huo B; Koussous K; Sparet R; Pachl C; Pereira L  
 CS Department of Stomatology, School of Dentistry, University of California, San Francisco 94143.  
 NC A123592 (NIAID)  
 DC DE08275 (NIDR)  
 HL33811 (NHLBI)  
 SO JOURNAL OF GENERAL VIROLOGY. (1989 Apr) 70 ( Pt 4) 979-85.  
 Journal code: JGB, ISSN: 0022-1317.  
 CY ENGLAND: United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 AB \*\*\*Cytomegalovirus\*\*\* ( \*\*\*CMV\*\*\* ) encodes several glycoproteins reported to be structural homologues of glycoproteins encoded by herpes simplex virus type 1 (HSV-1). To map the antigenic and functional domains on the 907 amino acid \*\*\*CMV\*\*\* of glycoprotein \*\*\* B (gB), we cloned and expressed a subfragment of BamH fragment R of the \*\*\*CMV\*\*\* (Towne) genome into an expression vector and reacted the resulting gene product with a panel of \*\*\*monoclonal\*\*\* antibodies. Our results showed that the DNA fragment encodes related glycoproteins which we previously designated gB and which others have reported to be homologous to HSV-1 gB in \*\*\*CMV\*\*\* ( \*\*\*AD169\*\*\* ). Analyses of the processing of \*\*\*CMV\*\*\* gB transiently expressed in eukaryotic cells showed that glycosylation occurred independently of viral infection. Ten antibodies with complement-dependent and independent neutralizing activity reacted with a truncated derivative of gB that contained 619 amino-terminal residues but lacked the transmembrane and intracellular regions of the molecule. Twelve additional antibodies reacted with a CHO cell line expressing a 680 amino-terminal derivative of gB. All of the reactive antibodies precipitated the 447 residue carboxy-terminal cleavage product of gB from extracts of \*\*\*CMV\*\*\*-infected cells. These results showed that the neutralizing epitopes map in at least two domains of gB which are located in a discontinuous segment of 219 amino acids between residues 461 and 680 from the amino terminus of the molecule.

L26 ANSWER 15 OF 21 MEDLINE  
 AN 89204913 MEDLINE  
 DN 89204913  
 TI The \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* strain Towne \*\*\*glycoprotein\*\*\* H gene encodes \*\*\*glycoprotein\*\*\* p86.  
 AU Pachl C; Probert W S; Hermen K M; Masanz F R; Rasmussen L; Merigan T C; Sparet R R  
 CS Chiron Corporation, Emeryville, California 94608.  
 SO VIROLOGY. (1989 Apr) 169 (2) 418-26.  
 Journal code: XEA, ISSN: 0042-6822.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Cancer Journals; Priority Journals  
 OS GENBANK-M2271  
 EM The gene encoding the \*\*\*glycoprotein\*\*\* H (gH) homologue of \*\*\*CMV\*\*\* strain Towne was cloned, sequenced, and expressed. The predicted 742 amino acid gH protein had characteristics typical of a membrane \*\*\*glycoprotein\*\*\* including hydrophobic signal and

L26 ANSWER 16 OF 21 MEDLINE  
 AN 90095454 MEDLINE  
 DN 90095454  
 TI Complement-independent neutralising \*\*\*monoclonal\*\*\* antibody with differential reactivity for strains of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\*  
 AU Babboonian C; Blake K; Booth J C; Wilkin C N  
 CS Department of Medical Microbiology, St. George's Hospital Medical School, University of London, England.  
 SO JOURNAL OF MEDICAL VIROLOGY. (1989 Oct) 29 (2) 139-45.  
 Journal code: JPN, ISSN: 0146-0515.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals  
 AB A199004 \*\*\*monoclonal\*\*\* antibody with complement-independent neutralising activity against \*\*\*cytomegalovirus\*\*\* ( \*\*\*CMV\*\*\* ) and reactive with the 86 kilodalton (kDa) viral glycoprotein \*\*\*glycoprotein\*\*\* H is described. Neutralisation tests against a range of different strains of \*\*\*CMV\*\*\* showed significant cross-reactivity, but clear differences were evident between the two prototype viruses \*\*\*AD169\*\*\* and Davis, and particularly between \*\*\*AD169\*\*\* and several low-passage recent clinical isolates. \*\*\*CMV\*\*\* present in urine was neutralised weakly if at all.

L26 ANSWER 17 OF 21 MEDLINE  
 AN 88230581 MEDLINE  
 DN 88230581  
 TI Identification and pre-erythocytic expression of the gene coding for the highly immunogenic 28-kilodalton structural \*\*\*phosphoprotein\*\*\* (p28) of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\*  
 AU Meyer H; Bankier A T; Landini M P; Brown C M; Barnell B G; Ruger B; Mach M  
 CS Institut für Klinische und Molekulare Virologie, Universität Erlangen-Nürnberg, Federal Republic of Germany.  
 SO JOURNAL OF VIROLOGY. (1988 Jul) 62 (7) 2243-50.  
 Journal code: KCV, ISSN: 0022-533X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 OS GENBANK-M21013  
 EM The gene encoding the \*\*\*glycoprotein\*\*\* H (gH) homologue of \*\*\*CMV\*\*\* strain Towne was cloned, sequenced, and expressed. The predicted 742 amino acid gH protein had characteristics typical of a membrane \*\*\*glycoprotein\*\*\* including hydrophobic signal and

transmembrane domains and six possible N-linked glycosylation sites. The \*\*\*CMV\*\*\* (Towne) gH gene had a 95% nucleotide identity and a 96.6% amino acid identity with the \*\*\*CMV\*\*\* ( \*\*\*AD169\*\*\* ) gH gene, as described by M. P. Crange, G. L. Smith, S. E. Bell, H. Hart, C. Brown, A. T. Bankier, P. Tomlinson, B. G. Barnell and T. C. Minson (1988, J. Virol. 62, 1416-1422). Transcriptional analysis of the gH gene revealed that the 2.9-kilobase (kb) gH transcript was not detected until late after \*\*\*CMV\*\*\* infection, indicating that the kinetics of gH expression were typical of the late class of \*\*\*CMV\*\*\* genes. The gH gene was expressed in COS cells using a vector in which transcription was driven by the SV40 early promoter. The expression of gH was detected by immunofluorescence using the virus neutralizing murine \*\*\*monoclonal\*\*\* antibody (C6, which is specific for an 86-kilodalton (kDa) \*\*\*CMV\*\*\* virion membrane protein (p86)). Amino acid sequence analysis of 986 tryptic peptides revealed sequence identity with peptides from the deduced gH amino acid sequence, confirming that the gH gene encodes p86. These results indicate that \*\*\*CMV\*\*\* gH can induce virus neutralizing antibodies and establishes gH as a candidate antigen for a subunit vaccine against \*\*\*CMV\*\*\*.

L26 ANSWER 18 OF 21 CAPLUS COPYRIGHT 1998 ACS

AN 90020438 CAPLUS  
 DN 10820438

TI Characterization of two different \*\*\*human\*\*\*

\*\*\*cytomegalovirus\*\*\* glycoproteins which are targets for virus neutralizing antibody

AU Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Merigan, Thomas C., Jr.

CS Sch. Med., Stanford Univ., Stanford, CA, 94305, USA

SO Virology (1988) 163(2): 308-18

CODEN: VIRLAZ; ISSN: 0042-6822

DT Journal

LA English

AB In previous studies two viral polypeptides detected by murine \*\*\*monoclonal\*\*\* antibodies which neutralize the infectivity of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* ( \*\*\*CMV\*\*\* ) \*\*\*AD169\*\*\* were identified. One is an 86,000-Da polypeptide (p86) and the second is a complex of two major immunoprecipitating polypeptides of 130,000 and 55,000 Da (p130/55). In this study it was shown that the two viral polypeptides are immunol. unrelated and have distinct peptide cleavage patterns. These polypeptides were characterized as glycoproteins and their biosynthesis studied in \*\*\*human\*\*\* embryonic lung cells. The oligosaccharides found on both the p86 and the p130/55 were characterized by endoglycosidase digestion as N-linked high-mannose carbohydrates. Inhibitors of glycosylation were used to further characterize the oligosaccharides. Tunicamycin, which inhibits the biosynthesis of N-linked oligosaccharides on the endoplasmic reticulum, inhibited both the infectivity and biosynthesis of the p86 and p130/55. The undeglycosylated forms in tunicamycin-treated cultures could be detected only under conditions of pulse-labeling with L-135I-methionine. Monensin, which inhibits the modification of glycoproteins from simple to complex forms in the Golgi, reduced viral infectivity at concentrations which had no effect on viral protein synthesis, but did not alter the apparent mol. wt of either the p86 or the p130/55. The oligosaccharides were crit. for the in vitro immunol. reactivity of the p86 in immunoblots. However, endoglycosidase F-treated p86 was comparable to the native form in inducing virus neutralizing antibody in guinea pigs. Endoglycosidase F-treated p130/55 retained its ability to bind antibody in Western blots.

L26 ANSWER 19 OF 21 MEDLINE

DUPLICATE 11

EM 198809

AB \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* contains a structural polypeptide that is 28 kilodaltons in apparent molecular size and is reactive in Western blot (immunoblot) analysis with the majority of \*\*\*human\*\*\* sera. The gene coding for this polypeptide was mapped on the genome of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* strain \*\*\*AD169\*\*\*. A \*\*\*monoclonal\*\*\* antibody specific for the 28-kilodalton polypeptide was used to screen a cDNA library constructed from poly(A)+ RNA of \*\*\*human\*\*\*

\*\*\*cytomegalovirus\*\*\*-infected cells in the preconyptic expression vector lambda gH1. Hybridization of cDNA with cosmid and plasmid clones mapped the gene to the HindIII R fragment. The gene was transcribed into a late 1.1-kilobase RNA. The nucleotide sequence of the coding region was determined. Parts of the 28-kilodalton polypeptide were expressed in Escherichia coli. Hybrid proteins fused to beta-galactosidase. In Western blots these proteins were recognized by \*\*\*human\*\*\* sera. Antibodies raised against the hybrid proteins reacted specifically with the viral antigen in immunoprecipitations and Western blots. In vitro phosphorylation of HCMV virions and immunoprecipitation showed that the 28-kilodalton polypeptide was phosphorylated.

AN 89045645 MEDLINE  
 DN 8305645  
 TI \*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* strain Towne  
 AU Stenke R; Thayer R M; Probert W S; Masliah F R; Chamberlain S H;  
 Rasmussen L; Morigan T C; Pachl C  
 CS Chiron Corporation, Emeryville, California 94608.  
 SO VIROLOGY. (1988 Nov) 167 (1) 207-25.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 OS GENBANK:M22343  
 EM 198902  
 AB The gene encoding \*\*\*glycoprotein\*\*\* B of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* ( \*\*\*CMV\*\*\* ) strain Towne was cloned, sequenced, and expressed in order to study potential targets for viral neutralization. Secondary structure analysis of the 907 amino acid protein predicted a 24 amino acid N-terminal signal sequence, and a potential transmembrane region composed of two domains, 34 and 21 amino acids. The \*\*\*CMV\*\*\* (Towne) gB gene had a 94% nucleotide similarity and a 95% amino acid similarity to the \*\*\*CMV\*\*\* ( \*\*\*AD169\*\*\* ) gB gene (as described by M.P. Crange et al. (1986, EMBO J. 5, 2057-2063)). Transcriptional analysis of the \*\*\*CMV\*\*\* (Towne) gB coding strand revealed that the gB message (3.9 kb), was transcribed from this region as early as 4 hr post-infection, and well in advance of gB protein synthesis.  
 Full-length and truncated versions of the gB gene were expressed in COS cells using expression vectors where transcription was driven by the SV40 early promoter or the \*\*\*CMV\*\*\* major immediate early promoter. Expression was detected by immunofluorescence and ELISA using the virus neutralizing murine \*\*\*monoclonal\*\*\* antibody 1588 (L. Rasmussen, J. Mullen, R. Nelson, and T.C. Morigan, 1985, J. Virol. 55, 274-280). This antibody had been shown previously to recognize a 55-kDa \*\*\*CMV\*\*\* virion protein and its related 130-kDa intracellular precursor. Amino acid sequence analysis of the N-terminus of the 55-kDa viral \*\*\*glycoprotein\*\*\* (gp55) showed that gp55 is derived from gB (gp130) by proteolytic cleavage and represents the C-terminal region of gp130. The truncated version of gB expressed in COS and CHO cells was also processed by proteolytic cleavage as demonstrated by Western blotting. Our study localizes the epitope recognized by 1588 to within a 186 amino acid fragment of the gp55 protein. These results indicate that \*\*\*CMV\*\*\* gB is a target for neutralization and establishes gp55 as a candidate component for use in a subunit vaccine.

L26 ANSWER 20 OF 21 MEDLINE  
 AN 86253169 MEDLINE  
 TI Mapping of the major \*\*\*glycoprotein\*\*\* gene of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\*  
 AU Mach M; Utz U; Fleckenstein B  
 SO JOURNAL OF GENERAL VIROLOGY. (1986 Jul) 67 ( Pt 7) 1461-7.  
 CY ENGLAND; United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 198610  
 AB The gene coding for the most abundant \*\*\*glycoprotein\*\*\* (gp55) of \*\*\*human\*\*\* \*\*\*Cytomegalovirus\*\*\* (HCMV), strain of \*\*\*AD169\*\*\* was physically mapped on the viral genome. A monospecific rabbit antiserum against gp55 was used to screen cDNA library that was constructed from poly(A)+ RNA of HCMV-infected

cells in the prokaryotic expression vector lambda g11. A cDNA clone was identified which synthesised part of the \*\*\*glycoprotein\*\*\*. It allowed localization of the coding region within the right terminal sequence of the HindIII-F fragment between map coordinates 0.344 and 0.380 of HCMV viral DNA.

L26 ANSWER 21 OF 21 MEDLINE  
 AN 84174099 MEDLINE  
 TI Physical mapping of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* genes; identification of DNA sequences coding for a viral phosphoprotein of 71 kDa and a viral 65-kDa polypeptide.  
 AU Nowak B; Gmeiner A; Samow P; Levine A J; Fleckenstein B  
 SO VIROLOGY. (1984 Apr 15) 134 (1) 91-102.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 198407  
 AB Polyadenylated RNA was isolated from fibroblast cultures infected with \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) strain \*\*\*AD169\*\*\* during the late phase of viral replication. The RNA was selected by hybridization to a series of cosmid clones containing the entire viral genome in partially overlapping segments. Translation of this RNA in a reticulocyte cell-free system allowed the mapping of virus specific polypeptides. Nine polypeptides synthesized in vitro conjugated with major virion structural proteins. An in vitro-translated protein of 71 kDa was precipitated by a \*\*\*monoclonal\*\*\* antibody directed against the phosphorylated internal envelope protein of 71 kDa. The map coordinates of viral DNA coding for this \*\*\* phosphoprotein\*\*\* were localized by hybrid selection with subcloned DNA fragments, and the direction of transcription was determined by hybrid selection with single-stranded DNA cloned in bacteriophage vector M13mp. An in vitro translation with size-fractionated RNA, combined with immunoprecipitation and Northern blot analyses, indicated that an mRNA of 71 kDa encodes the 71-kDa \*\*\* phosphoprotein\*\*\*. An mRNA of the same size, map coordinates, and orientation was translated into an abundant 65-kDa polypeptide which had the same size as the major structural \*\*\*phosphoprotein\*\*\* of HCMV.

L27 0 "HIND III R FRAGMENT"  
 => d his

(FILE 'HOME' ENTERED AT 09:23:04 ON 03 JUL 1998)  
 FILE MEDLINE, BIOSIS, CAPLUS ENTERED AT 09:23:17 ON 03 JUL 1998  
 L1 47016 S CMV OR CYTOMEGALOVIRUS OR CYTOMEGALO VIRUS  
 L2 68 S P2P28  
 L3 996 S "AD169" OR "AD 169"  
 L4 6 S L1 AND L2 AND L3  
 L5 40 S L1 AND L2  
 L6 15646 S "HINDIII" OR "HIND III"  
 L7 2866 S "SMA1"  
 L8 696 S L1 AND L8  
 L9 0 S L1 AND L6  
 L10 3 S L1 AND L1  
 EM 199503  
 L26 ANSWER 1 OF 21 BIOSIS COPYRIGHT 1998 BIOSIS  
 DN 97-414434 BIOSIS  
 TI Identification of the gene coding for rhesus \*\*\*cytomegalovirus\*\*\* \*\*\*glycoprotein\*\*\* B and immunological analysis of the protein.  
 AU Kriegl B; Mach M  
 CS Institut fuer Klinische und Molekulare Virologie, Universitaet Erlangen-Nuernberg, Schlossgarten 4, 91054 Erlangen, Germany  
 SO Journal of General Virology 78 (8), 1997, 1999-2007. ISSN: 0022-1317  
 LA English  
 L26 ANSWER 2 OF 21 MEDLINE  
 AN 95088574 MEDLINE  
 TI Intracellular localization and DNA-binding activity of a class of viral early phosphoproteins in \*\*\*human\*\*\* fibroblasts infected with \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (Towne strain).  
 AU Iwayama S; Yamamoto T; Furuya T; Kobayashi R; Iwata K; Hirai K  
 CS Department of Cell Regulation, Tokyo Medical and Dental University, Japan  
 SO JOURNAL OF GENERAL VIROLOGY. (1994 Dec) 75 ( Pt 12) 3309-18.  
 CY ENGLAND; United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 OS GENBANK:D26511  
 EM 199503  
 L26 ANSWER 3 OF 21 CAPLUS COPYRIGHT 1998 ACS  
 AN 1995-588262 CAPLUS  
 DN 123135808  
 TI The antigenic and genomic variation of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\* (HCMV) isolated in Korea  
 AU Hwang, Eung-Soo; Lee, Hong-Bock; Lim, Dong-Gyun; Seoh, Ju-Young; Park, Chung-Gyu; Park, Il-ae-Won; Jong, Hyun-Soo; Kook, Yoon-Hoh; Lee, Hwan-Jong; et al.  
 CS College of Medicine, Seoul National Univ., Seoul, 110-799, S. Korea  
 SO Taejon Misengui Haksochi (1994), 29(6), 631-9  
 CODEN: TMHCDX, ISSN: 0253-3162  
 DT Journal  
 LA Korean  
 L26 ANSWER 4 OF 21 MEDLINE  
 AN 95010975 MEDLINE  
 DUPLICATE 2

DN 95030975  
 TI \*\*\*Human\*\*\* monoclonal\*\*\* anti- \*\*\*cytomegalovirus\*\*\*  
 ( \*\*\*DNV\*\*\* antibody (MSL 109): enhancement of in vitro  
 foscarnet- and ganciclovir-induced inhibition of \*\*\*CMV\*\*\*  
 replication.

AU Nokta M; Tolpin M; Nadler P I; Pollard R B  
 CS Department of Internal Medicine, University of Texas Medical Branch,  
 Galveston 77555.

SO ANTIVIRAL RESEARCH, (1994 May) 24 (1) 17-26.  
 Journal code: 617. ISSN: 0166-3342.

CY Netherlands  
 CY English  
 LA English  
 FS Priority Journals  
 EM 199501

L26 ANSWER 5 OF 21 MEDLINE  
 AN 93019061 MEDLINE  
 TI \*\*\*Glycoprotein\*\*\* gp16 of \*\*\*human\*\*\*  
 \*\*\*cytomegalovirus\*\*\* contains epitopes for strain-common and  
 strain-specific antibodies.

AU Meyer H; Sundqvist V A; Pereira L; Mach M  
 CS Institut für Klinische und Molekulare Virologie,  
 Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany  
 SO JOURNAL OF GENERAL VIROLOGY, (1992 Sep) 73 ( Pt 9) 2375-83.  
 Journal code: 19B. ISSN: 0022-1317.

CY ENGLAND AND UNITED KINGDOM  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Cancer Journals; Priority Journals  
 EM 199301

L26 ANSWER 6 OF 21 MEDLINE  
 AN 92148911 MEDLINE  
 TI The dominant linear neutralizing antibody-binding site of  
 \*\*\*glycoprotein\*\*\* gp86 of \*\*\*human\*\*\* \*\*\*cytomegalovirus\*\*\*  
 is strain specific.

AU Urban M; Bröhl W; Mach M  
 CS Institut für Klinische und Molekulare Virologie,  
 Friedrich-Alexander-Universität Erlangen-Nürnberg, Germany  
 NC 1 POI HD10659 (NICHD)

SO JOURNAL OF VIROLOGY, (1992 Mar) 66 (3) 1301-11.  
 Journal code: KCV. ISSN: 0022-538X.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 EM 199109

L26 ANSWER 9 OF 21 MEDLINE  
 AN 91361569 MEDLINE  
 TI \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* strain Towne pp28 gene:  
 sequence comparison to pp28 of HCMV \*\*\*AD169\*\*\* and stable  
 expression in Chinese hamster ovary cells.

AU Pande H; Campo K; Tamamchi B; Zhai J A  
 CS Division of Immunology, Beckman Research Institute of the City of  
 Hope, Duarte, California 91010.  
 NC CA3372 (NCI)

SO VIROLOGY, (1991 Oct) 184 (2) 762-7.  
 Journal code: XEA. ISSN: 0042-6822.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Priority Journals; Cancer Journals  
 OS GENTBANK-M73441  
 EM 199112

L26 ANSWER 10 OF 21 CAPLUS COPYRIGHT 1998 ACS  
 AN 1992421241 CAPLUS  
 TI \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* strain Towne pp65 gene:  
 nucleotide sequence and expression in *Escherichia coli*

AU Pande Hema; Campo K; Tamamchi Becky; Zhai John A  
 CS Div. Immunol, Beckman Res. Inst, City of Hope, Duarte, CA, 91010,  
 USA  
 SO Virology (1991), 182(1), 220-8  
 CODEN: VRLAX; ISSN: 0042-6822  
 DT Journal  
 LA English

L26 ANSWER 11 OF 21 CAPLUS COPYRIGHT 1998 ACS  
 AN 1992529479 CAPLUS  
 +

SO JOURNAL OF GENERAL VIROLOGY, (1992 Apr) 73 ( Pt 4) 983-8.  
 Journal code: 19B. ISSN: 0022-1317.

CY ENGLAND; United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)

LA English  
 FS Priority Journals; Cancer Journals  
 EM 199210

L26 ANSWER 8 OF 21 MEDLINE  
 AN 91245165 MEDLINE  
 DN 91245165  
 TI Analysis of interstrain variation in \*\*\*cytomegalovirus\*\*\*  
 \*\*\*glycoprotein\*\*\* B sequences encoding neutralization-related  
 epitopes.

AU Chou S W; Dennison K M  
 CS Medical Service, VA Medical Center, Portland, OR 97207..  
 SO JOURNAL OF INFECTIOUS DISEASES, (1991 Jun) 163 (6) 1229-34.  
 Journal code: IHJ. ISSN: 0022-1899.

CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)

LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 OS GENTBANK-M60923; GENTBANK-M60924; GENTBANK-M60925;  
 GENTBANK-M60926; GENTBANK-M60927; GENTBANK-M60928; GENTBANK-M60929;  
 GENTBANK-M60930; GENTBANK-M60931; GENTBANK-M60932; GENTBANK-M60933;  
 GENTBANK-M60934  
 EM 199109

L26 ANSWER 13 OF 21 CAPLUS  
 AN 1990173633 CAPLUS  
 TI \*\*\*Human\*\*\* \*\*\*cytomegalovirus\*\*\* protein similar to  
 vertebral MHC class I antigen for use in vaccination and diagnosis

IN Burrell Burch George; Beck Stephan; Minson Anthony C.; Smith, Geoffrey; Lilley; Crangue; Martin Patrick  
 PA Cogent Ltd, UK  
 SO PCT Int Appl 26 pp.  
 CODEN: PIXX2D  
 WO 8903835 A1 890629  
 DS WO 8903835 A1 890629  
 DS WO 8903835 A1 890629  
 DS W: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE  
 RW: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE  
 AI WO 89-03835 890712  
 PRAJ US 88-227622 880803  
 DT Patent  
 LA English

L26 ANSWER 14 OF 21 MEDLINE  
 AN 89279278 MEDLINE  
 DN 89279278  
 TI A major neutralizing domain maps within the carboxyl-terminal half  
 of the cleaved \*\*\*cytomegalovirus\*\*\* B \*\*\*glycoprotein\*\*\*.

AU Banks T; Huo B; Kousoulas K; Spaete R; Pachl C; Pereira L  
 CS Dept of Stomatology, School of Dentistry, University of  
 California, San Francisco 94143.  
 NC A123592 (NIAID)  
 DE08275 (NIDR)  
 HL3381 (NHLBI)  
 SO JOURNAL OF GENERAL VIROLOGY, (1989 Apr) 70 ( Pt 4) 979-85.  
 Journal code: 19B. ISSN: 0022-1317.

CY ENGLAND; United Kingdom  
 DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS	Priority Journals; Cancer Journals	EM	198909	SO	Virology (1988) 164(2): 308-18	L31	PROCESSING COMPLETED FOR L30							
AN	89204913	MEDLINE	DN	93204913	MEDLINE	DN	94159338 MEDLINE							
TI	***human***		TI	***human***		TI	Triple retinal infection with human immunodeficiency virus type 1, ***cytomegalovirus***, and herpes simplex virus type 1. Light and electron microscopy, immunohistochemistry, and in situ hybridization.							
AU	Pach C; Prober W S; Hennsen K M; Mastiaz F R; Rasmussen L; Mergen T C; Spaete R R		AU	Pach C; Prober W S; Mastiaz F R; Chamberlain S H; Rasmussen L; Mergen T C; Spaete R R		AU	Rummelt V; Rummelt C; Jahn G; Winkel H; Sinzger C; Mayer U; Naumann G O							
CA	Chiron Corporation, Emeryville, California 94608.		CA	Chiron Corporation, Emeryville, California 94608..		CA	Department of Ophthalmology, University of Erlangen-Nürnberg, Germany							
CY	United States		CY	United States		CY	OPHTHALMOLOGY, (1994 Feb) 101 (2): 270-9.							
DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)							
LA	English		LA	English		LA	English							
FS	Cancer Journals; Priority Journals		FS	Priority Journals; Cancer Journals		FS	Priority Journals							
OS	GENBANK-M25271		OS	GENBANK-M22343		OS	OPHTHALMOLOGY, (1994 Feb) 101 (2): 270-9.							
EM	198907		EM	198902		EM	198906							
L26	ANSWER 16 OF 21	MEDLINE	L26	ANSWER 19 OF 21	MEDLINE	L26	ANSWER 1 OF 5	MEDLINE						
DN	90095454	MEDLINE	DN	89045645	MEDLINE	DN	94159338 MEDLINE							
TI	Complement-independent neutralizing ***monoclonal*** antibody with differential reactivity for strains of ***human***		TI	***Human***		TI	Triple retinal infection with human immunodeficiency virus type 1, ***cytomegalovirus***, strain To write							
**cytomegalovirus***			**cytomegalovirus***			**cytomegalovirus***, and herpes simplex virus type 1. Light and electron microscopy, immunohistochemistry, and in situ hybridization.								
AU	Babcoom C; Blake K; Broth J C; Whalin C N		AU	Babcoom C; Blake K; Broth J C; Whalin C N		AU	Rummelt V; Rummelt C; Jahn G; Winkel H; Sinzger C; Mayer U; Naumann G O							
CS	Medical Microbiology, St. George's Hospital Medical School, University of London, England..		CS	Medical Microbiology, St. George's Hospital Medical School, University of London, England..		CS	Department of Ophthalmology, University of Erlangen-Nürnberg, Germany							
SO	JOURNAL OF MEDICAL VIROLOGY, (1989 Oct) 29 (2): 139-45.		SO	JOURNAL OF GENERAL VIROLOGY, (1986 Jul) 67 ( Pt. 7): 1461-7.		SO	OPHTHALMOLOGY, (1994 Feb) 101 (2): 270-9.							
JO	Journal code: JMV. ISSN: 0166-6615.		JO	Journal code: JGV. ISSN: 0022-3171.		JO	Journal code: OJ. ISSN: 0161-6420.							
CY	United States		CY	United Kingdom		CY	United States							
DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)							
LA	English		LA	English		LA	English							
FS	Priority Journals		FS	Priority Journals		FS	Priority Journals							
EM	199004		EM	199004		EM	199006							
L26	ANSWER 17 OF 21	MEDLINE	L26	ANSWER 20 OF 21	MEDLINE	L26	ANSWER 21 OF 21	MEDLINE						
AN	88210581	MEDLINE	AN	86231169	MEDLINE	AN	94159338 MEDLINE							
DN	88210581		DN	86231169		DN	94159338 MEDLINE							
TI	Identification and prokaryotic expression of the gene coding for the highly immunogenic 28-kilodalton structural ***phosphoprotein*** (pp28) of ***human***		TI	Mapping of the major ***glycoprotein*** gene of ***human***		TI	Mapping of the major ***glycoprotein*** gene of ***human***							
AU	Brown A T; Landini M P; Barrell B G; Ruger B; Mach M; Peltz H; Brown A T; Landini M P; Barrell B G; Ruger B; Mach M		AU	***cytomegalovirus***		AU	***cytomegalovirus***							
CS	Institut für Klinische und Molekulare Virologie, Universitat Erlangen-Nürnberg, Federal Republic of Germany..		CS	***cytomegalovirus***		CS	***cytomegalovirus***							
SO	JOURNAL OF VIROLOGY, (1988 Jul) 62 (7): 2241-50.		SO	***phosphoprotein*** of 71 kDa and a viral 65-kDa polypeptide.		SO	***phosphoprotein*** of 71 kDa and a viral 65-kDa polypeptide.							
JO	Journal code: JKV. ISSN: 0022-538X.		JO	AU	***CMV***	JO	AU	***CMV***						
CY	United States		CY	Brown B; Gmeiner A; Samow P; Levine A J; Fleckenstein B		CY	Brown B; Gmeiner A; Samow P; Levine A J; Fleckenstein B							
DT	Journal; Article; (JOURNAL ARTICLE)		DT	SO	VIRIOLOGY, (1984 Apr 15) 134 (1): 91-102.		DT	VIRIOLOGY, (1984 Apr 15) 134 (1): 91-102.						
LA	English		LA	Journal code: XEA. ISSN: 0042-6822.		LA	Journal code: XEA. ISSN: 0042-6822.							
FS	Priority Journals; Cancer Journals		FS	Priority Journals; Cancer Journals		FS	Priority Journals							
EM	198610		EM	198610		EM	198610							
L26	ANSWER 21 OF 21	MEDLINE	L26	ANSWER 21 OF 21	MEDLINE	L26	ANSWER 21 OF 21	MEDLINE						
AN	86174099	MEDLINE	AN	86174099	MEDLINE	AN	86174099	MEDLINE						
DN	84174099		DN	84174099		DN	84174099							
TI	Physical mapping of ***human*** ***cytomegalovirus*** genes: identification of DNA sequences coding for a virion ***phosphoprotein*** of 71 kDa and a viral 65-kDa polypeptide.		TI	Physical mapping of ***human*** ***cytomegalovirus*** genes: identification of DNA sequences coding for a virion ***phosphoprotein*** of 71 kDa and a viral 65-kDa polypeptide.		TI	Physical mapping of ***human*** ***cytomegalovirus*** genes: identification of DNA sequences coding for a virion ***phosphoprotein*** of 71 kDa and a viral 65-kDa polypeptide.							
AU	Brown B; Gmeiner A; Samow P; Levine A J; Fleckenstein B		AU	Brown B; Gmeiner A; Samow P; Levine A J; Fleckenstein B		AU	Brown B; Gmeiner A; Samow P; Levine A J; Fleckenstein B							
SO	VIRIOLOGY, (1984 Apr 15) 134 (1): 91-102.		SO	***CMV***		SO	***CMV***							
JO	Journal code: XEA. ISSN: 0042-6822.		JO	Journal code: XEA. ISSN: 0042-6822.		JO	Journal code: XEA. ISSN: 0042-6822.							
CY	United States		CY	United States		CY	United States							
DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)							
LA	English		LA	English		LA	English							
FS	Priority Journals; Cancer Journals		FS	Priority Journals; Cancer Journals		FS	Priority Journals							
EM	198407		EM	198407		EM	198407							
L28	10897 HUMAN SERA		L28	10897 HUMAN SERA		L28	10897 HUMAN SERA							
EM	198809		EM	198809		EM	198809							
L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS	L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS	L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS			
AN	1988201438		AN	1988201438		AN	1988201438		AN	1988201438				
TI	Characterization of two different ***human***		TI	Characterization of two different ***human***		TI	Characterization of two different ***human***		TI	Characterization of two different ***human***				
**cytomegalovirus***			**cytomegalovirus***			**cytomegalovirus***			**cytomegalovirus***					
neutralizing antibody			neutralizing antibody			neutralizing antibody			neutralizing antibody					
AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.				
L26	ANSWER 15 OF 21	MEDLINE	L26	ANSWER 15 OF 21	MEDLINE	L26	ANSWER 15 OF 21	MEDLINE	L26	ANSWER 15 OF 21	MEDLINE			
AN	89204913		AN	89204913		AN	89204913		AN	89204913				
TI	***human***		TI	***cytomegalovirus***, strain To write		TI	***cytomegalovirus***, strain To write		TI	***cytomegalovirus***, strain To write				
**glycoprotein***			**glycoprotein***			**glycoprotein***			**glycoprotein***					
H gene encodes			H gene encodes			H gene encodes			H gene encodes					
***glycoprotein***			***glycoprotein***			***glycoprotein***			***glycoprotein***					
P 86.			P 86.			P 86.			P 86.					
AU	Pach C; Prober W S; Hennsen K M; Mastiaz F R; Rasmussen L; Mergen T C; Spaete R R		AU	Pach C; Prober W S; Mastiaz F R; Chamberlain S H; Rasmussen L; Mergen T C; Spaete R R		AU	Pach C; Prober W S; Mastiaz F R; Chamberlain S H; Rasmussen L; Mergen T C; Spaete R R		AU	Pach C; Prober W S; Mastiaz F R; Chamberlain S H; Rasmussen L; Mergen T C; Spaete R R				
CA	Chiron Corporation, Emeryville, California 94608.		CA	Chiron Corporation, Emeryville, California 94608..		CA	Chiron Corporation, Emeryville, California 94608..		CA	Chiron Corporation, Emeryville, California 94608..				
CY	United States		CY	United States		CY	United States		CY	United States				
DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)				
LA	English		LA	English		LA	English		LA	English				
FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals				
OS	GENBANK-M25271		OS	GENBANK-M22343		OS	GENBANK-M22343		OS	GENBANK-M22343				
EM	198907		EM	198902		EM	198906		EM	198906				
L26	ANSWER 16 OF 21	MEDLINE	L26	ANSWER 19 OF 21	MEDLINE	L26	ANSWER 19 OF 21	MEDLINE	L26	ANSWER 19 OF 21	MEDLINE			
DN	90095454		DN	89045645		DN	89045645		DN	89045645				
TI	***Human***		TI	***Human***		TI	***Human***		TI	***Human***				
**glycoprotein***			**glycoprotein***			**glycoprotein***			**glycoprotein***					
B is processed by proteolytic cleavage.			B is processed by proteolytic cleavage.			B is processed by proteolytic cleavage.			B is processed by proteolytic cleavage.					
Journal code: XEA. ISSN: 0042-6822.			Journal code: XEA. ISSN: 0042-6822.			Journal code: XEA. ISSN: 0042-6822.			Journal code: XEA. ISSN: 0042-6822.					
LA	English		LA	English		LA	English		LA	English				
FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals				
OS	GENBANK-M25271		OS	GENBANK-M22343		OS	GENBANK-M22343		OS	GENBANK-M22343				
EM	198907		EM	198902		EM	198906		EM	198906				
L26	ANSWER 17 OF 21	MEDLINE	L26	ANSWER 20 OF 21	MEDLINE	L26	ANSWER 21 OF 21	MEDLINE	L26	ANSWER 21 OF 21	MEDLINE			
DN	88210581		DN	86231169		DN	94159338 MEDLINE		DN	94159338 MEDLINE				
TI	Complement-independent neutralizing ***monoclonal*** antibody with differential reactivity for strains of ***human***		TI	Mapping of the major ***glycoprotein*** gene of ***human***		TI	Triple retinal infection with human immunodeficiency virus type 1, ***cytomegalovirus***, and herpes simplex virus type 1. Light and electron microscopy, immunohistochemistry, and in situ hybridization.		TI	Triple retinal infection with human immunodeficiency virus type 1, ***cytomegalovirus***, and herpes simplex virus type 1. Light and electron microscopy, immunohistochemistry, and in situ hybridization.				
**cytomegalovirus***			**cytomegalovirus***			**cytomegalovirus***			**cytomegalovirus***					
AU	Babcoom C; Blake K; Broth J C; Whalin C N		AU	Babcoom C; Blake K; Broth J C; Whalin C N		AU	Babcoom C; Blake K; Broth J C; Whalin C N		AU	Babcoom C; Blake K; Broth J C; Whalin C N				
CS	Medical Microbiology, St. George's Hospital Medical School, University of London, England..		CS	Medical Microbiology, St. George's Hospital Medical School, University of London, England..		CS	Medical Microbiology, St. George's Hospital Medical School, University of London, England..		CS	Medical Microbiology, St. George's Hospital Medical School, University of London, England..				
SO	JOURNAL OF MEDICAL VIROLOGY, (1989 Oct) 29 (2): 139-45.		SO	JOURNAL OF GENERAL VIROLOGY, (1986 Jul) 67 ( Pt. 7): 1461-7.		SO	JOURNAL OF GENERAL VIROLOGY, (1986 Jul) 67 ( Pt. 7): 1461-7.		SO	JOURNAL OF GENERAL VIROLOGY, (1986 Jul) 67 ( Pt. 7): 1461-7.				
JO	Journal code: JMV. ISSN: 0166-6615.		JO	Journal code: JGV. ISSN: 0022-3171.		JO	Journal code: JGV. ISSN: 0022-3171.		JO	Journal code: JGV. ISSN: 0022-3171.				
CY	United States		CY	United Kingdom		CY	United Kingdom		CY	United States				
DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)				
LA	English		LA	English		LA	English		LA	English				
FS	Priority Journals		FS	Priority Journals		FS	Priority Journals		FS	Priority Journals				
OS	GENBANK-M25271		OS	GENBANK-M22343		OS	GENBANK-M22343		OS	GENBANK-M22343				
EM	199004		EM	199004		EM	199006		EM	199006				
L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS	L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS	L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS			
AN	1988201438		AN	1988201438		AN	1988201438		AN	1988201438				
TI	Characterization of two different ***human***		TI	Characterization of two different ***human***		TI	Characterization of two different ***human***		TI	Characterization of two different ***human***				
***cytomegalovirus***			***cytomegalovirus***			***cytomegalovirus***			***cytomegalovirus***					
neutralizing antibody			neutralizing antibody			neutralizing antibody			neutralizing antibody					
AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.				
L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS	L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS	L26	ANSWER 18 OF 21	CAPLUS	COPYRIGHT 1998 ACS			
AN	1988201438		AN	1988201438		AN	1988201438		AN	1988201438				
TI	Characterization of two different ***human***		TI	Characterization of two different ***human***		TI	Characterization of two different ***human***		TI	Characterization of two different ***human***				
***cytomegalovirus***			***cytomegalovirus***			***cytomegalovirus***			***cytomegalovirus***					
neutralizing antibody			neutralizing antibody			neutralizing antibody			neutralizing antibody					
AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.		AU	Rasmussen, Lucy; Nelson, Margaret; Neff, Margaret; Mergen, Thomas C., Jr.				
L26	ANSWER 15 OF 21	MEDLINE	DUPLICATE 8	L26	ANSWER 19 OF 21	MEDLINE	DUPLICATE 11	L26	ANSWER 19 OF 21	MEDLINE	DUPLICATE 1			
AN	89204913		DUPLICATE 8	AN	89045645		DUPLICATE 11	AN	94159338 MEDLINE		DUPLICATE 1			
TI	***human***		TI	***Human***		TI	***Human***		TI	***Human***		TI	***Human***	
**glycoprotein***			**glycoprotein***			**glycoprotein***			**glycoprotein***			**glycoprotein***		
H gene encodes			H gene encodes			H gene encodes			H gene encodes			H gene encodes		
***glycoprotein***			***glycoprotein***			***glycoprotein***			***glycoprotein***			***glycoprotein***		
P 86.			P 86.			P 86.			P 86.			P 86.		
AU	Pach C; Prober W S; Hennsen K M; Mastiaz F R; Rasmussen L; Mergen T C; Spaete R R		AU	Pach C; Prober W S; Mastiaz F R; Chamberlain S H; Rasmussen L; Mergen T C; Spaete R R		AU	Pach C; Prober W S; Mastiaz F R; Chamberlain S H; Rasmussen L; Mergen T C; Spaete R R		AU	Pach C; Prober W S; Mastiaz F R; Chamberlain S H; Rasmussen L; Mergen T C; Spaete R R				
CA	Chiron Corporation, Emeryville, California 94608.		CA	Chiron Corporation, Emeryville, California 94608..		CA	Chiron Corporation, Emeryville, California 94608..		CA	Chiron Corporation, Emeryville, California 94608..				
CY	United States		CY	United States		CY	United States		CY	United States				
DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)		DT	Journal; Article; (JOURNAL ARTICLE)				
LA	English		LA	English		LA	English		LA	English				
FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals		FS	Cancer Journals; Priority Journals				
OS	GENBANK-M25271		OS	GENBANK-M22343		OS	GENBANK-M22343		OS	GENBANK-M22343				
EM	198907		EM	198902		EM	198906		EM	198906				
L26	ANSWER 16 OF 21	MEDLINE	DUPLICATE 10	L26	ANSWER 19 OF 21	MEDLINE	DUPLICATE 12	L26	ANSWER 21 OF 21	MEDLINE	DUPLICATE 1			
DN	90095454		DN	89045645		DN	94159338 MEDLINE		DN	94159338 MEDLINE		DN	94159338 MEDLINE	
TI	***Human***		TI	***Human***		TI	***Human***		TI	***Human***		TI	***Human***	
**glycoprotein***			**glycoprotein***											

AU KARNAHL, K; SANDOW, D; SELIVANOV, N A  
CS INST. MEDIZINISCHE MIKROBIOLOGIE DES BEREICHES MEDIZIN  
DER MARTIN-LUTHER-UNIV. HALLE-WITTENBERG, LENINALLEE 6,  
HALLE, DDR-4020.  
SO Z KLIN MED (BERL) 45 (16), 1990. 1401-1404 CODEN: ZKMEEF  
ISSN: 0233-1608

LA German

AB DNA-hybridization was used to detect human  
\*\*\*cytomegalovirus\*\*\* (HCMV) in urine samples taken from patients  
after kidney transplantation. The following 32P-labelled probes were  
chosen: the 8,900 base-pair (bp) \*\*\*Eco\*\*\* \*\*\*Rl\*\*\* fragment  
of cDNA clone HCMV pHD9 and the 11,700 bp Hind III-L fragment of  
HCMV

AD 169. Preliminary results so far obtained from 31 patients after  
kidney transplantation are likely to suggest that the above probes  
are suitable for specific, no-delay diagnostic identification of  
HCMV-DNA. Further studies will have to be undertaken for more  
elucidation of the specificity and sensitivity of nucleic acid  
hybridization in comparison to other methods for virus detection.

LJ1 ANSWER 3 OF 5 MEDLINE  
DN 89198061 MEDLINE  
TI Primer-mediated enzymatic amplification of \*\*\*cytomegalovirus\*\*\*  
(\*\*\*CMV\*\*\* DNA. Application to the early diagnosis of  
\*\*\*CMV\*\*\* infection in marrow transplant recipients.  
AU Cassol, S. A.; Poon, M. C.; Pal, R.; Naylor, M. J.; Culver-Janes, J.; Bowen, T. J.;  
Russell, J. A.; Krawetz, S. A.; Pon, R. T.; Hoer, D. I.  
CS Canadian Red Cross, Blood Transfusion Service, Calgary, Alberta.  
SO JOURNAL OF CLINICAL INVESTIGATION, (1989 Apr) 83 (4) 1109-15.  
Journal code: HJ7. ISSN: 0021-9738.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals; Cancer Journals  
EM 198907

AB A nucleic acid amplification procedure, the polymerase chain  
reaction (PCR), has been used to establish a diagnostic assay for  
the identification of \*\*\*cytomegalovirus\*\*\* (\*\*\*CMV\*\*\*)  
immediate-early sequences in clinical specimens. Preliminary testing  
against virus-infected cell cultures indicated that the PCR assay  
was highly \*\*\*CMV\*\*\*-specific, recognizing both wild-type and  
laboratory strains of \*\*\*CMV\*\*\*. There was no cross-reactivity  
with human DNA or with DNA from other herpes viruses. The  
sensitivity of the assay, using cloned \*\*\*CMV\*\*\* AD169  
\*\*\*Eco\*\*\* \*\*\*Rl\*\*\* fragment as template, was 1 viral genome  
per 40,000 cells. In a prospective study of \*\*\*CMV\*\*\* infection  
in bone marrow transplant recipients, the PCR assay correctly  
identified four patients who were followed longitudinally. In  
three of these patients who were followed longitudinally,  
correlation of DNA reactivity with \*\*\*CMV\*\*\* culture and  
\*\*\*CMV\*\*\* antibody status over time indicated that DNA was the  
most sensitive marker for the diagnosis of \*\*\*CMV\*\*\* infection.

LJ1 ANSWER 4 OF 5 MEDLINE  
DN 90096208 MEDLINE  
TI DNA probe technique for diagnosis of human \*\*\*cytomegalovirus\*\*\*  
infection.  
AU Zhang, X.; Duan, Y. P.; Chen, X. Z.  
SO JOURNAL OF TONGJI MEDICAL UNIVERSITY, (1989) 9 (3) 170-3.  
Journal code: KAJ. ISSN: 0257-716X.

CY China  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
EM 199004

AB A rapid diagnostic assay for human \*\*\*cytomegalovirus\*\*\* (HCMV)  
has been developed for detecting HCMV DNA in urine samples with  
32P-labelled cloned fragment, \*\*\*Eco\*\*\* \*\*\*Rl\*\*\* fragment B  
of DNA from HCMV strain Toxone. 3.2 pg of homologous fragment from  
HCMV DNA could be detected by the labelled probe, and it did not  
hybridize DNA from other herpes viruses or human cells in dot  
hybridization assay. The assay correctly identified all (100%) of 7  
urine specimen cultures positive for HCMV and 9 (90%) of 10  
urine sample cultures negative for HCMV. So the hybridization assay  
was correct and as sensitive as the currently available tissue  
culture technique. The infection levels of different populations,  
such as organ transplantation recipients, patients with infantile  
hepatitis syndrome, normal infants, fetuses, have been investigated  
by the hybridization assay in the present study.

LJ1 ANSWER 5 OF 5 MEDLINE  
DN 80078852 MEDLINE  
TI \*\*\*Cytomegalovirus\*\*\* strain differentiation by DNA restriction  
analysis.  
AU Doerr, H. W.; Knuzler, A.; Schnitz, H.  
SO ONCOLOGY, (1979) 35 (6) 245-7.  
Journal code: OHW. ISSN: 0030-2414.

CY Switzerland  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198004

AB The heterogeneity of \*\*\*CMV\*\*\* DNA obtained from standard  
strains and new isolates, including a vaccination strain (Troye  
125), was investigated. The cleavage patterns produced by the  
restriction endonucleases \*\*\*Eco\*\*\* \*\*\*Rl\*\*\* and Bam 1  
revealed stable strain specificities of \*\*\*CMV\*\*\*. On the other  
hand, a remarkable homology of sequence-specific \*\*\*CMV\*\*\* DNA  
fragmentation was demonstrated. A \*\*\*CMV\*\*\* subtyping relevant  
to clinical questions seems to be improbable.  
=> d his

(FILE 'HOME' ENTERED AT 09:25:04 ON 03 JUL 1998)

FILE (MEDLINE, BIOSIS, CAPLUS) ENTERED AT 09:25:17 ON 03 JUL  
1998

LJ 47016 S CMV OR CYTOMEGALOVIRUS OR CYTOMEGALO  
VIRUS

L2 68 S/P28

L3 996 S "AD169" OR "AD 169"  
L4 6 S/L1 AND L2 AND L3  
L5 2 DUP REM L4 (2 DUPLICATES REMOVED)

L6 40 S/L1 AND L2

L7 1564 S "HINDII" OR "HIND III"  
L8 2866 S "SMAL"

L9 686 S/L7 AND L8  
L10 0 S/L9 AND L6  
L11 3 S/L9 AND L1  
L12 1 DUP REM L11 (2 DUPLICATES REMOVED)

L13 998 S/HUMAN AND L3  
L14 937 S/L13 AND L1

L15 168516 S GLYCOPROTEIN  
L16 24580 S PHOSPHOPROTEIN

L17 0 S "P2G11"  
L18 344708 S MONOCOLONAL OR "MAB P2G11"  
L19 192406 S/L15 OR L16  
L20 125 S/L19 AND L14  
L21 139 S/L8 AND L14  
L22 0 S/L21 AND "MAB P2G11"  
L23 43 S/L21 AND L20  
L24 43 S/L24 AND HUMAN  
L25 21 DUP REM L25 (22 DUPLICATES REMOVED)  
L26 0 S HIND III R FRAGMENT  
L27 10897 S HUMAN SERA  
L28 1702 S ECO RI  
L29 7 S/L1 AND L29  
L30 5 DUP REM L10 (2 DUPLICATES REMOVED)

L31 => s detection  
L32 => s diagnosis  
L33 => s 133 or 134  
L34 NOT FOUND  
The L-number entered could not be found. To see the definition  
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (>).  
=> s 133 or 132  
=> s 135 and 128  
L34 2140444 L33 OR L32  
L35 98859 L34 AND L1  
L36 64 L35 AND L28  
L37 19 L36 AND POSITIVE  
=> s 116 and 137  
L38 5 L16 AND L37  
=> dup rem L38  
L39 PROCESSING COMPLETED FOR L38  
L40 3 DUP REM L38 (2 DUPLICATES REMOVED)  
=> d 1-3 bib ab

L39 ANSWER 1 OF 3 MEDLINE  
AN 95280751 MEDLINE  
DN 95280751  
TI Construction of polyepitope fusion antigen of human  
\*\*\*cytomegalovirus\*\*\* ppUL32 and \*\*\*detection\*\*\* of specific

antibodies by ELISA.

AU Ripalti A; Bocconi M C; Campanini F; Bergamini G; Lazzarotto T;  
Butta M C; Dalla Cea B; Landini M P  
CS Department of Microbiology, School of Medicine, University of  
Bologna, Italy.  
SO NEW MICROBIOLOGICA, (1995 Jan) 18 (1) 1-12.  
CY Italy  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199509

AB We have previously shown that single linear epitopes of the major human \*\*\*cytomegalovirus\*\*\* (HCMV) antigens, expressed as fusion proteins or synthesized as oligopeptides, can be valuable diagnostic material in the serology of HCMV infection (5, 6, 13). In this work we fused sequences expressing two different epitopes (aa 1005-1048 and aa 595-614) contained in the basic \*\*\*phosphoprotein\*\*\* of 150 kD coded by ppUL32 (1, 2) (ppUL12), which has repeatedly been shown to be the strongest immunogen present in the viral particle. The fusion protein was tested by ELISA with HCMV-\*\*\*positive\*\*\* \*\*\*"human"\*\*\* \*\*\*"sera"\*\*\* in comparison with other fusion proteins of ppUL32. We found that the double epitope fusion protein was recognised by IgM present in a larger number of sera and with more intense reactions than all the other ppUL32 fusion proteins. The double epitope reacted positively with 81.3% and, when denatured, with 94.7% of IgM- \*\*\*positive\*\*\* sera respectively. IgG reactivity was also high, reaching a percentage of 90.7.

L39 ANSWER 3 OF 3 MEDLINE

AN 94201338 MEDLINE

DN 94201338

TI Construction of polyepitope fusion antigens of human \*\*\*cytomegalovirus\*\*\* ppUL32; reactivity with human antibodies.

AU Ripalti A; Ruan Q; Bocconi M C; Campanini F; Bergamini G; Landini M P  
CS Department of Microbiology, School of Medicine, University of Bologna, Italy.  
SO JOURNAL OF CLINICAL MICROBIOLOGY, (1994 Feb) 32 (2) 358-63.  
Journal code: JCLM; ISSN: 0095-1177.

CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 199407

AB We have previously shown that single linear epitopes of the major human \*\*\*cytomegalovirus\*\*\* (HCMV) antigens, expressed as fusion proteins or synthesized as oligopeptides, can be valuable diagnostic material in the serology of HCMV infection (M. P. Landini, M. T. Guan, G. Jahn, W. Lindemann, M. Mach, A. Ripalti, A. Necker, T. Lazzarotto, and B. Pfleiderer, J. Clin. Microbiol. 28:1375-1379, 1990; M. P. Landini, T. Lazzarotto, A. Ripalti, M. X. Guan, and M. La Placa, J. Clin. Microbiol. 27:2324-2327, 1989; A. Ripalti, M. P. Landini, E. S. Mocarski, and M. La Placa, J. Gen. Virol. 70:1247-1251, 1989). In this work we addressed the question of whether the expression of more than one linear epitope on a single fusion protein could increase the reactivity of genetically engineered antigenic material with human antibody. To answer this question we fused sequences expressing two different epitopes contained in the basic \*\*\*phosphoprotein\*\*\* of 150 kDa encoded by UL32 (M. S. Chee, A. T. Banker, S. Kurzawides, J. A. T. Cerny, T. Horner, C. A. Hutchinson, T. Kouzantides, B. G. Barrett, Curr. Top. Microbiol. Immunol. 154:125-169, 1990; G. Jahn, T. Kourzides, M. Mach, B.-C. Scholl, B. Pfleiderer, B. Traupe, E. Preddie, S. C. Satchwell, B. Fleckenstein,

and B. G. Barrett, J. Virol. 61:1358-1367, 1987), ppUL32, which was repeatedly shown to be the strongest immunogen present in the viral particle. We also made fusions with sequences expressing a single epitope repeated once, twice, or three times. The different fusion proteins were tested with HCMV-\*\*\*positive\*\*\* \*\*\*"human"\*\*\* \*\*\*"sera"\*\*\*. (ABSTRACT TRUNCATED AT 250 WORDS)

DN 89279299 MEDLINE

AN 89279299 MEDLINE

TI Identification and preliminary use of recombinant lambda g11 fusion protein in human \*\*\*cytomegalovirus\*\*\* \*\*\*"diagnosis"\*\*\*

AU Ripalti A; Landini M P; Mocarski E S; La Placa M  
CS Institute of Microbiology, Medical Faculty, S. Orsola General Hospital, Bologna, Italy.  
SO JOURNAL OF GENERAL VIROLOGY, (1989 May) 70 ( Pt 5) 1247-51.  
Journal code: JGB; ISSN: 0022-1317.

CY ENGLAND; United Kingdom  
DT Journal; Article; (JOURNAL ARTICLE)

LA English  
FS Priority Journals, Cancer Journals  
EM 198909

AB We have isolated reactive clones from a lambda g11 expression library of human \*\*\*cytomegalovirus\*\*\* (HCMV) DNA using HCMV-\*\*\*positive\*\*\* \*\*\*"human"\*\*\* \*\*\*"sera"\*\*\*. Among the recombinant clones obtained, one carried a fragment encoding a portion of p52, the major non-structural DNA-binding protein of 52K (p52), and another carried a part of the gene coding for p50, the major structural \*\*\*phosphoprotein\*\*\*. These two fusion proteins were examined by immunoblot analysis to test their ability to bind specific antibodies in \*\*\*"human"\*\*\* \*\*\*"sera"\*\*\*. The results showed that high titres of antibody to the DNA-binding protein are present in sera of patients undergoing acute HCMV infection, whereas high titres of antibodies to the structural \*\*\*phosphoprotein\*\*\* are widespread in the healthy HCMV-seropositive population. The use of these fusion proteins as antigens for differential screening of serum as a way of detecting recent HCMV infection is discussed.

=> s136 and 13

L40 0 L36 AND L3

=> s135 and 13

=> d his

(FILE HOME ENTERED AT 09:25:04 ON 03 JUL 1998)

FILE MEDLINE, BIOSIS, CAPLUS ENTERED AT 09:25:17 ON 03 JUL 1998  
47016 S CMV OR CYTOMEGALOVIRUS OR CYTOMEGALO VIRUS  
L1 68 SPP38  
L2 996 S AD169\* OR "AD 169"  
L3 6 S L1 AND L2 AND L3  
L4 6 S L1 AND L2 AND L3  
L5 2 DUP REM1 (4 DUPLICATES REMOVED)  
L6 40 S L1 AND L2  
L7 15646 S "HINDII" OR "HIND III"  
L8 2866 S "SMAI"  
L9 686 S L7 AND L8  
L10 0 S L9 AND L6  
L11 3 S L9 AND L1

L12 1 DUP REM L11 (2 DUPLICATES REMOVED)  
L13 93 S HUMAN AND L3  
L14 937 S L13 AND L1  
L15 168356 S GLYCOPROTEIN  
L16 24580 S PHOSPHOPROTEIN  
L17 0 S "P2G11"  
L18 3434708 S MONOClonal OR "MAB P2G11"  
L19 192406 S L15 OR L16  
L20 125 S L19 AND L14  
L21 139 S L18 AND L14  
L22 0 S L21 AND "MAB P2G11"  
L23 43 S L21 AND L20  
L24 43 S L3 AND L23  
L25 43 S L24 AND HUMAN  
L26 2 DUP REM L25 (22 DUPLICATES REMOVED)  
L27 0 S "HIND III R FRAGMENT"  
L28 10897 S HUMAN SERA  
L29 1702 S ECO RI  
L30 7 S L1 AND L2  
L31 5 DUP REM L10 (2 DUPLICATES REMOVED)  
L32 676194 S DETECTION  
L33 151410 S DIAGNOSIS  
L34 2140444 S L33 OR L32  
L35 9859 S L34 AND L1  
L36 64 S L35 AND L28  
L37 19 S L36 AND POSITIVE  
L38 5 S L16 AND L37  
L39 3 DUP REM L18 (2 DUPLICATES REMOVED)  
L40 0 S L36 AND L3  
L41 179 S L35 AND L3  
L42 169 L41 AND L3  
=> s119 and 142  
L43 9 L19 AND L42  
=> s141 and 128  
L44 0 L42 AND L28  
=> s141 and 128  
L45 0 L41 AND L28  
=> s136 and 13  
=> s136 and 13  
L46 0 L36 AND L13  
=> s113 and 134  
L47 169 L13 AND L14  
=> s147 and 128  
L48 0 L47 AND L28  
=> s129 or 17 or 18  
L49 19120 L29 OR L7 OR L8  
=> s149 and 113

L50 104 L49 AND L13

=&gt; s 150 and 11

L51 104 L50 AND L1

=&gt; s 151 and 128

L52 3 L51 AND L28

=&gt; dup rem 152

PROCESSING COMPLETED FOR L52  
1 DUP REM L52 (2 DUPLICATES REMOVED)

&gt;&gt; d bib ab

L53 ANSWER 1 OF 1 MEDLINE

DUPLICATE 1

AN 82230581 MEDLINE

DN 82230581

TI Identification and prokaryotic expression of the gene coding for the highly immunogenic 28-kilodalton structural phosphoprotein (pp28) of **\*\*\*"human"\*\*\*** **\*\*\*"cytomegalovirus"\*\*\***

AU Meyer H; Bankier A T; Landini P; Brown C M; Barrell B G; Ruger B;

Mach M

CS Institut für Klinische und Molekulare Virologie, Universität Erlangen-Nürnberg, Federal Republic of Germany.

SO JOURNAL OF VIROLOGY, (1988 Jul) 62 (7) 2243-50.

CY United States

CT Journal Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals; Cancer Journals

OS GENBANK-M21013

EM 198809

AB **\*\*\*"human"\*\*\*** **\*\*\*"cytomegalovirus"\*\*\*** contains a structural polypeptide that is 28 kilodaltons in apparent molecular size and is reactive in Western blot (immunoblot) analysis with the majority of **\*\*\*"human"\*\*\*** **\*\*\*"sera"\*\*\***. The gene coding for this polypeptide was mapped on the genome of **\*\*\*"human"\*\*\*** **\*\*\*"cytomegalovirus"\*\*\*** strain **\*\*\*"AD169"\*\*\***. A monoclonal antibody specific for the 28-kilodalton polypeptide was used to screen a cDNA library constructed from poly(A)+ RNA of **\*\*\*"human"\*\*\***\*\*\*"cytomegalovirus"\*\*\* -infected cells in the procaryotic expression vector lambda gtl1. Hybridization of cDNA with cosmid and plasmid clones mapped the gene to **\*\*\*"HindIII"\*\*\***. The gene was transcribed into a late 1.3-kilobase RNA. The nucleotide sequence of the coding region was determined. Parts of the 28-kilodalton polypeptide were expressed in *Escherichia coli* as hybrid proteins fused to beta-galactosidase. In Western blots these proteins were recognized by **\*\*\*"human"\*\*\*** **\*\*\*"sera"\*\*\***. Antibodies raised against the hybrid proteins reacted specifically with the viral antigen in immunoprecipitations and Western blots. *In vitro* phosphorylation of HCMV virions and immunoprecipitation showed that the 28-kilodalton polypeptide was phosphorylated.

VIRUS

L2 68 S PP28

L3 996 S "AD169" OR "AD169"

L4 6 S L1 AND L2 AND L3  
2 DUP REM L4 (4 DUPLICATES REMOVED)

L5 40 S L1 AND L2

L6 15646 S "SHINDII" OR "HIND III"

L7 2866 S "SMAI"

L8 686 S L17 AND L8

L9 0 S L9 AND L6

L10 3 S L9 AND L1

L11 1 DUP REM L11 (2 DUPLICATES REMOVED)

L12 L12 S HUMAN AND L3

L13 937 S L13 AND L1

L14 937 S S GLYCOPROTEIN

L15 16853 S GLYCOPROTEIN

L16 24580 S PHOSPHOPROTEIN

L17 0 S "P2G11"

L18 344708 S MONOCLONAL OR "MAB P2G11"

L19 92406 S L15 OR L16

L20 125 S L19 AND L14

L21 139 S L18 AND L14

L22 0 S L21 AND "MAB P2G11"

L23 43 S L21 AND L20

L24 43 S L13 AND L23

L25 21 DUP REM L25 (2 DUPLICATES REMOVED)

L26 0 S "HIND III R FRAGMENT"

L27 10897 S HUMAN SERA

L28 1702 S ECO RI

L29 7 S L11 AND L29

L30 5 DUP REM L30 (2 DUPLICATES REMOVED)

L31 676194 S DETECTION

L32 1551410 S DIAGNOSIS

L33 2140444 S L33 OR L32

L34 9859 S L24 AND L1

L35 64 S L35 AND L28

L36 19 S L36 AND POSITIVE

L37 5 S L16 AND L37

L38 3 DUP REM L38 (2 DUPLICATES REMOVED)

L39 0 S L36 AND L3

L40 179 S L35 AND L3

L41 169 S L41 AND L13

L42 9 S L19 AND L42

L43 0 S L42 AND L28

L44 0 S L41 AND L28

L45 6 S L36 AND L13

L46 169 S L13 AND L34

L47 0 S L47 AND L28

L48 19120 S L29 OR L7 OR L8

L49 104 S L49 AND L13

L50 104 S L50 AND L1

L51 3 S L51 AND L28

L52 1 DUP REM L52 (2 DUPLICATES REMOVED)

&gt;&gt; log Y

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L1 47016 S CMV OR CYTOMEGALOVIRUS OR CYTOMEGALO